

capping of an existing MLLW trench would produce the maximum 24-hour and annual concentrations of SO<sub>2</sub>. In 2007, trench-construction activities would be underway, which would produce the maximum 1- and 8-hour concentrations of CO and the maximum 1- and 3-hour concentrations of SO<sub>2</sub>. After disposal operations cease, LLBG and ILAW capping operations would be in full swing. This sustained activity would produce the maximum 24-hour and annual concentrations of PM<sub>10</sub> and annual concentrations of NO<sub>2</sub>.

Estimates of the maximum air quality impacts to the public from activities in the 200 Areas under Alternative E are summarized in Table 5.10. Estimates of the maximum air quality impacts to the public from Area C activities are the same for all Alternative Groups (see Table 5.6).

**Table 5.10.** Alternative E: Maximum Air Quality Impacts to the Public from Activities in the 200 Areas

Pollutant	Averaging Time	Ambient Air Quality Standard (µg/m <sup>3</sup> )	Hanford & Lower Bound Volume		Upper Bound Volume	
			Maximum Air Quality Impacts (µg/m <sup>3</sup> )	Percent of Standard	Maximum Air Quality Impacts (µg/m <sup>3</sup> )	Percent of Standard
PM <sub>10</sub>	24 hr	150	60	40	62	41
	Annual	50	0.53	1.1	0.54	1.1
SO <sub>2</sub>	1 hr	1,000	93	9.3	95	9.5
	3 hr	1,300	42	3.2	42	3.2
	24 hr	260	3.1	1.2	3.2	1.2
	Annual	50	0.019	0.038	0.020	0.040
CO	1 hr	40,000	1700	4.3	1700	4.44.3
	8 hr	10,000	530	5.3	530	5.3
NO <sub>2</sub>	Annual	100	0.84	0.84	0.97	0.97

All air quality impacts from Alternative E would be within ambient air quality standards (see Table 4.5). The largest potential impacts to the public from activities at Area C would result from SO<sub>2</sub> and CO emissions. The largest potential air quality impact to the public from activities in the 200 Areas would involve the 24-hour PM<sub>10</sub> air concentration. Using the series of conservative assumptions employed in the dispersion modeling, this maximum air quality impact would be about 41 percent of the applicable air quality standard.

## 5.2.6 No Action Alternative

Project activities that would generate air quality impacts under the No Action Alternative include the use of diesel-fueled equipment during construction of additional trenches of current design, construction of the ILAW trench and 66 CWC buildings, backfilling the LLW and MLLW trenches, capping two existing MLLW trenches, and excavation of materials at the borrow pits. A propane-fueled pulse drier would be used to treat MLLW trench leachate, beginning in 2026. Fugitive dust would be associated with all major construction and operation activities.

For the No Action Alternative (Hanford Only and Lower Bound waste volumes), the largest air quality impacts would occur during two different periods of project operation. In 2007, the heavy use of construction equipment to construct LLW trenches and CWC buildings, the capping of existing MLLW trenches, and propane use at CWC would produce the maximum 24-hour and annual concentrations of PM<sub>10</sub>. In 2034, ILAW vault and final LLW trench construction would be underway, and propane for CWC and pulse drier operations would be at their peak. These activities would produce the maximum concentrations of SO<sub>2</sub> over all averaging periods, the maximum annual concentrations of NO<sub>2</sub>, and the maximum 1- and 8-hour concentrations of CO.

Estimates of the maximum air quality impacts to the public from activities in the 200 Areas under the No Action Alternative are presented in Table 5.11. Estimates of the maximum air quality impacts to the public from Area C activities are the same for all Alternative Groups (see Table 5.6).

**Table 5.11.** No Action Alternative: Maximum Air Quality Impacts to the Public from Activities in the 200 Areas

Pollutant	Averaging Time	Ambient Air Quality Standard (µg/m <sup>3</sup> )	Maximum Air Quality Impacts	
			Maximum Pollutant Concentration (µg/m <sup>3</sup> )	Percent of Standard
PM <sub>10</sub>	24 hr	150	57	38
	Annual	50	0.37	0.74
SO <sub>2</sub>	1 hr	1000	86	8.6
	3 hr	1300	35	2.7
	24 hr	260	3.4	1.3
	Annual	50	0.019	0.038
CO	1 hr	40,000	1600	4.0
	8 hr	10,000	460	4.6
NO <sub>2</sub>	Annual	100	0.93	0.93

All air quality impacts from the No Action Alternative would be within ambient air quality standards (see Table 4.5). The largest potential impacts to the public from Area C activities would result from SO<sub>2</sub> and CO emissions. The largest potential air quality impact from emissions in the 200 Areas would involve the 24-hour PM<sub>10</sub> air concentration. Using the series of conservative assumptions employed in the dispersion modeling, this maximum air quality impact would be about 38 percent of the applicable air quality standard.

### 5.2.7 Comparison of Alternative Groups

Table 5.12 presents a summary comparison, across all Alternative Groups, of maximum ambient air quality impacts to the public from activities in the 200 Areas. The greatest air quality impacts are experienced under Alternative B – Upper Bound. Depending on the pollutant and averaging period, the lowest air quality impacts are experienced under Alternative A – Hanford Only and Lower Bound, Alternative C – Hanford Only and Lower Bound, Alternative C – Upper Bound, and the No Action Alternative.